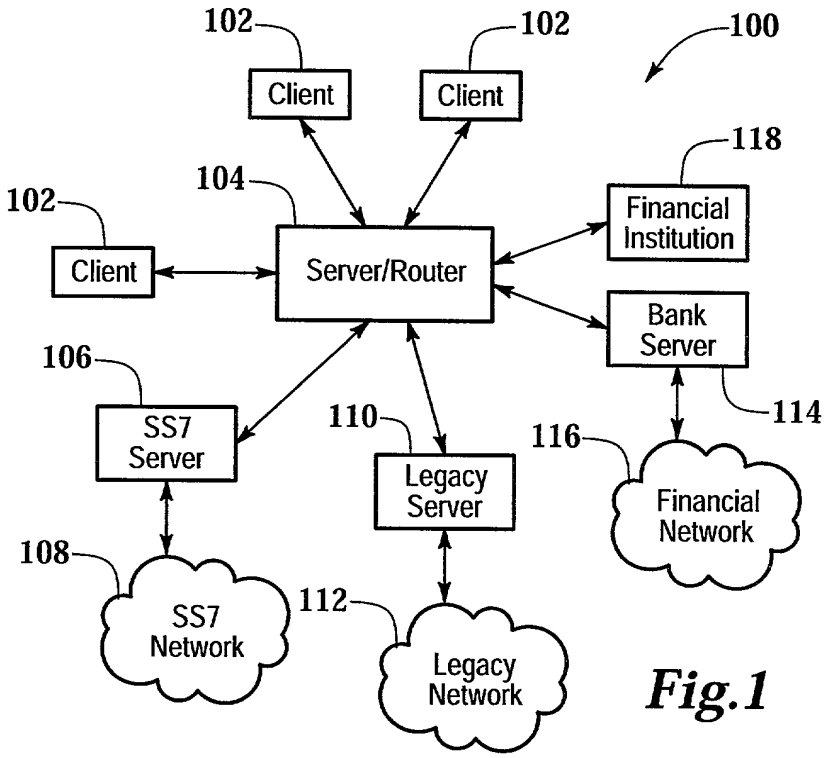

Fig.1

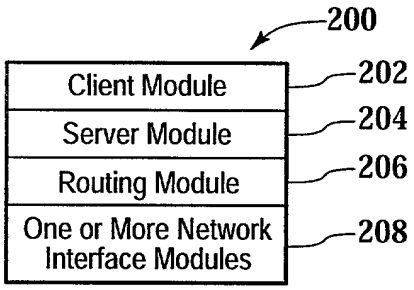

Fig.2A

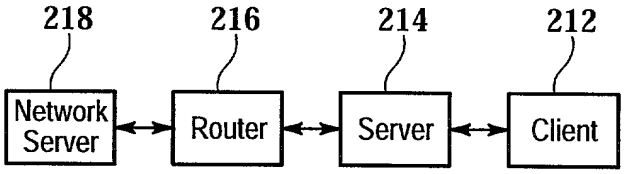

Fig.2B

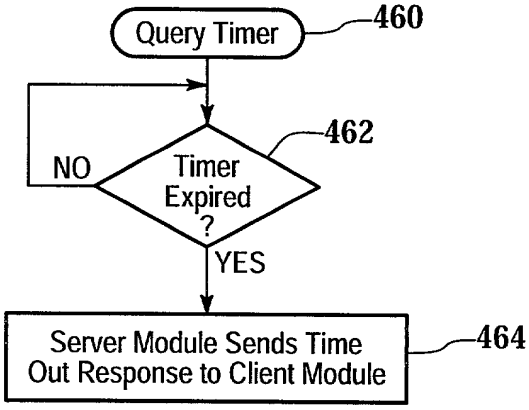

Fig.4C

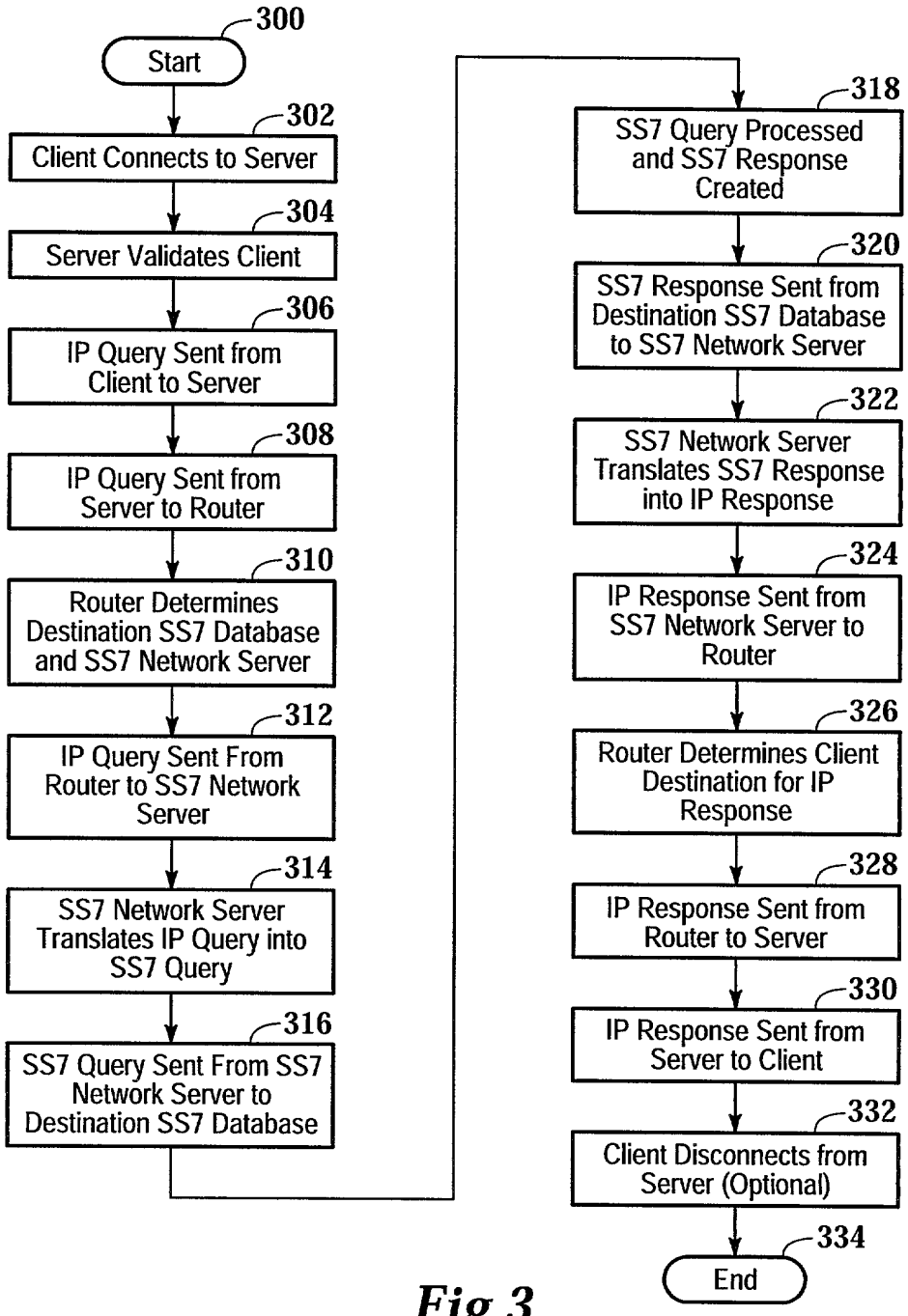
300
Start
302
Client Connects to Server
304
Server Validates Client
306
IP Query Sent from Client to Server
308
IP Query Sent from Server to Router
310
Router Determines Destination SS7 Database and SS7 Network Server
312
IP Query Sent From Router to SS7 Network Server
314
SS7 Network Server Translates IP Query into SS7 Query
316
SS7 Query Sent From SS7 Network Server to Destination SS7 Database
318
SS7 Query Processed and SS7 Response Created
320
SS7 Response Sent from Destination SS7 Database to SS7 Network Server
322
SS7 Network Server Translates SS7 Response into IP Response
324
IP Response Sent from SS7 Network Server to Router
326
Router Determines Client Destination for IP Response
328
IP Response Sent from Router to Server
330
IP Response Sent from Server to Client
332
Client Disconnects from Server (Optional)
334
End

Fig.3

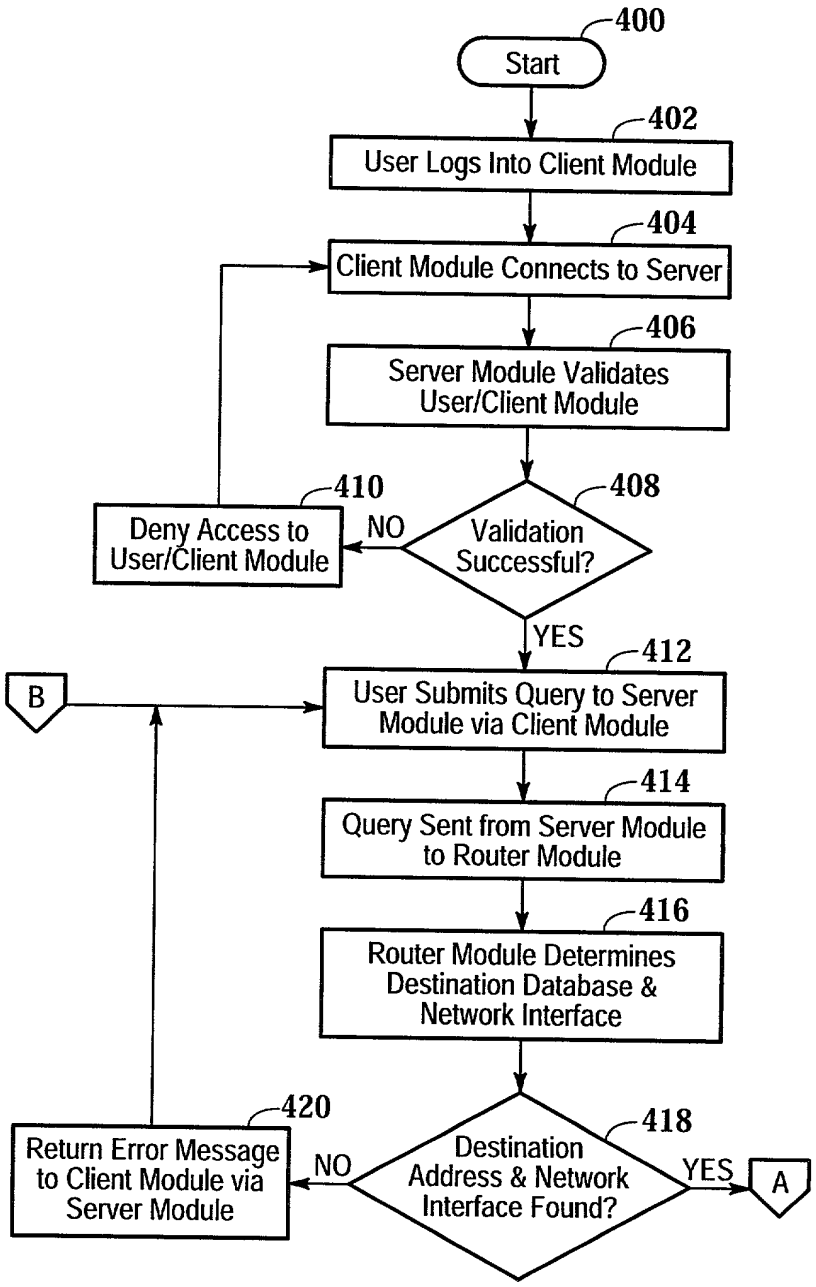
400
Start
402
User Logs Into Client Module
404
Client Module Connects to Server
406
Server Module Validates User/Client Module
408
Validation Successful?
NO
410
Deny Access to User/Client Module
YES
412
User Submits Query to Server Module via Client Module
B
414
Query Sent from Server Module to Router Module
416
Router Module Determines Destination Database & Network Interface
418
Destination Address & Network Interface Found?
NO
YES
A
420
Return Error Message to Client Module via Server Module

Fig.4A

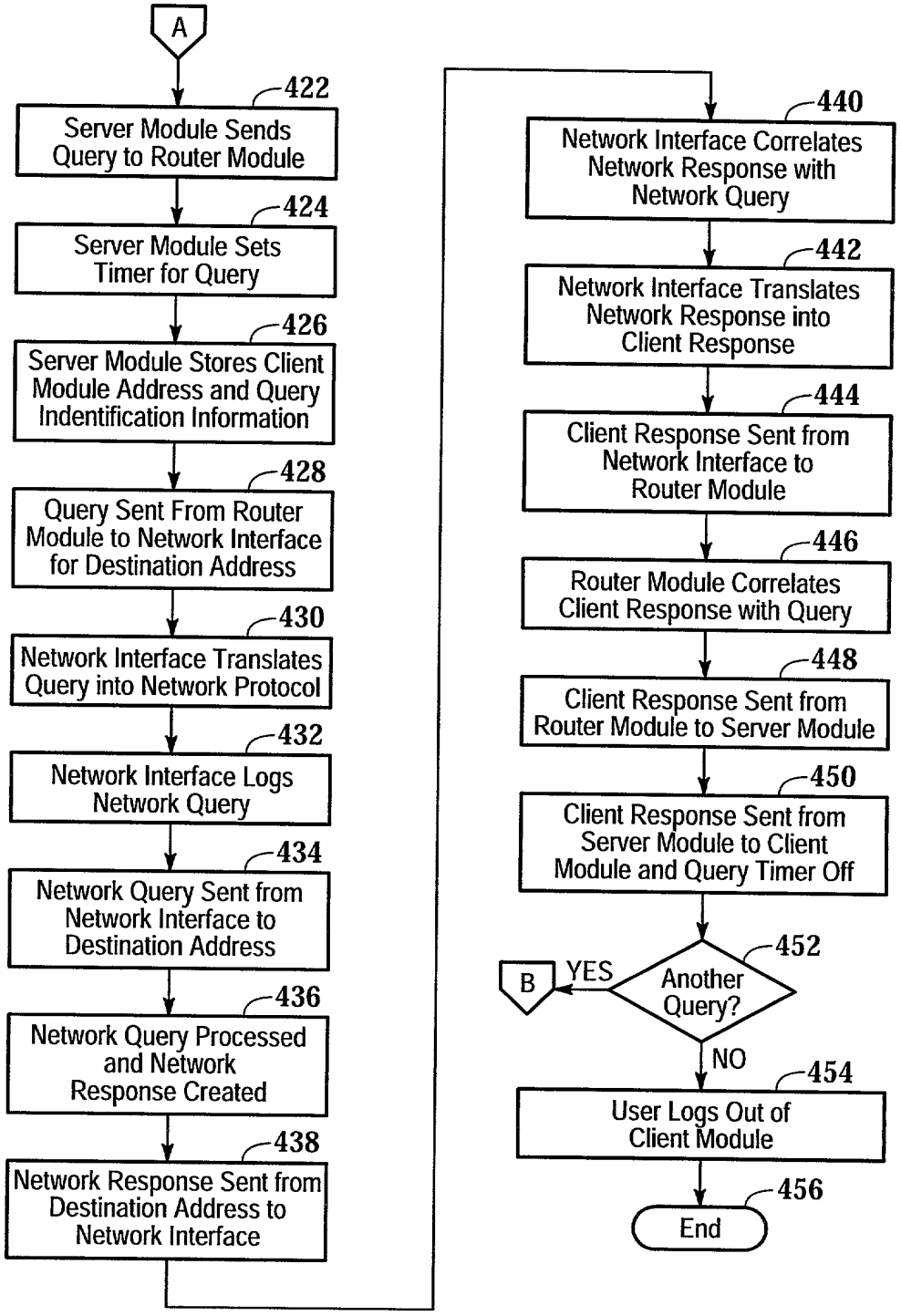
A
422
Server Module Sends Query to Router Module
424
Server Module Sets Timer for Query
426
Server Module Stores Client Module Address and Query Indentification Information
428
Query Sent From Router Module to Network Interface for Destination Address
430
Network Interface Translates Query into Network Protocol
432
Network Interface Logs Network Query
434
Network Query Sent from Network Interface to Destination Address
436
Network Query Processed and Network Response Created
438
Network Response Sent from Destination Address to Network Interface
440
Network Interface Correlates Network Response with Network Query
442
Network Interface Translates Network Response into Client Response
444
Client Response Sent from Network Interface to Router Module
446
Router Module Correlates Client Response with Query
448
Client Response Sent from Router Module to Server Module
450
Client Response Sent from Server Module to Client Module and Query Timer Off
452
B
YES
Another Query?
NO
454
User Logs Out of Client Module
456
End

Fig.4B